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These are Six Engines to Avoid

Here are seven engines in some late-model vehicles that have been known to fail catastrophically. Use at your own risk.



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By Mark Toljagic

APRIL 16, 2018

Car companies are first and foremost engine builders; it's their reason for being.

The evidence is right there in the name: General Motors, Ford Motor Company and Bavarian Motor Werks, to rhyme off just a few.

Today's high-tech engines still bear some resemblance to Nikolaus Otto's four-stroke internal combustion engine of 1876. Despite almost 150 years of research, development and refinement, the principle of using a reciprocating piston to extract power from a controlled explosion endures.

Still, mistakes can happen. Some engines can run out of oil or throw a timing chain and grind themselves to smithereens. Here are seven engines in some late-model vehicles that have been known to fail catastrophically. Use at your own risk.

General Motors 2.4-L Four Cylinder

The redesigned 2010 **Chevrolet Equinox** and all-new GMC Terrain crossovers were big sellers – until owners began reporting the base 2.4-L four-cylinder engine eating itself after the timing chain stretched and jumped the gear teeth. Plenty of timing chains, camshaft actuators and entire engines have been replaced, sometimes more than once. Beware if your four-cylinder Equinox/Terrain starts chugging like an old Massey-Ferguson tractor. ☐

A class-action lawsuit alleges the four-cylinder engine consumes as much as a litre of oil per 1,600 km travelled in 2010-2017 models. Some

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Chevrolet Equinox

2010 Ecotec 2.4L I-4 VVT DI (LAF)

may be candidates for new pistons and piston rings. On models built before March 2011, there is a strong correlation between leaking high-pressure fuel pumps diluting the oil and resulting ring wear.

Dealers use an oil consumption test to measure wear: if a quart (0.95 L) disappears in under 3,200 km, the engine is considered defective. Some owners have documented a quart or litre of oil lost in as little as 600 km. Dealers will replace the four piston assemblies. The top compression ring in the rebuild kit has a more robust coating and the updated fuel pump has an improved seal.

Audi/Volkswagen 2.0T Turbo Four Cylinder

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Lots of Audi and Volkswagen models wear a 2.0T badge on their hindquarters. It refers to a powerful 2.0-L turbocharged and direct-

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injected gasoline engine, one that can present a cluster headache for owners. Between the high-pressure fuel pump failures, short-lived ignition coils and the chronic carbon buildup, the cost of German parts and repairs can shock and awe.

The chain-driven TSI engines – model years 2009 and up with a “C” engine code – are reputed to be more reliable than the previous belt-driven 2.0T. But neglecting the lower timing-chain tensioner on the 2.0-L engine can result in catastrophic damage when the chain jumps the timing. Some **VW Tiguan** owners have paid \$10,000 for replacement engines. The fragile plastic water pump is another source of mechanical failure.

Audi and parent company Volkswagen had to settle a class-action lawsuit with owners of 2.0T-powered models that consumed motor oil at voracious rates. The lawsuit alleges 126,000 Audis have defects in their turbocharged engines that cause the vehicles to guzzle oil. The affected vehicles are the 2009-2010 **Audi A4** and A5, and the 2011 Audi A4, A5 and Q5 sport utility with the engine code CAEB.

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Ford's EcoBoost family of small but mighty turbocharged engines has allowed the automaker to make lofty fuel-efficiency claims, but at least one of the engines has exacted a heavy toll. The British-made 1.6-L EcoBoost turbo direct injection four-cylinder engine that powers some Ford Escapes, Fiesta STs, Fusion sedans and Transit Connect vans is notorious for overheating and even catching on fire.

The engine can disastrously overheat because a lack of coolant causes the cylinder head to crack or warp. Pressurized oil leaks can result in engine compartment fires. At least 29 fires have been recorded by the U.S. government. Some owners have reported coolant leaking into the cylinders, never a good omen. Budget \$8,000 to replace this technological marvel.

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Fiesta ST, 2013-2014 **Fusion** and 2013-2015 Transit Connect vehicles due to coolant leaks. Watch for engine temperature warnings and disappearing coolant. It's interesting to note that Ford took its 1.6-L GTDI engine out behind the shed and put it out of its misery. It now markets a smaller 1.5-L EcoBoost engine made in Romania.

Subaru 2.5-L Turbo Four Cylinder



Subaru owners are a fiercely loyal bunch, but it's hard to stay devoted to a product that may self-destruct and require an engine replacement costing between \$8,000 and \$12,000. Owners of 2009-14 **Subaru Impreza** WRX and WRX STI models have launched a class-action lawsuit, alleging the pistons and PCV (positive crankcase ventilation) systems in the high-performance 2.5-L turbocharged engines may overheat or malfunction, requiring a king's ransom in repairs.



According to plaintiffs, Subaru used a casting process that weakened the piston ringlands (which separate the piston rings), while the PCV system causes crankcase oil vapors to enter the combustion chamber.

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mixture and places more of a burden on the pistons, which can fracture and destroy the engine.

Impreza WRX and WRX STI drivers claim their cars suddenly lose power, stall or suffer engine failure as internal parts overheat and seize. In addition, there's a second lawsuit that claims problems with oil lubrication to the bearings and crankshafts cause similar 2.5-L engine failures.

Fiat Chrysler 3.0-L V6 EcoDiesel



The 3.0-L turbodiesel V6 “EcoDiesel” supplied by former Fiat affiliate VM Motori and made available optionally on the Ram 1500 light-duty truck and Jeep Grand Cherokee can fail relatively early in its service life. So much so that the **Ram 1500** equipped with the EcoDiesel engine has been branded a lemon by the Automobile Protection Association and *Lemon-Aid* author Phil Edmonston.

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failures, an event that can unfold while driving on the highway, which owners have described in vivid detail. One owner recounted one incident as “a catastrophic bottom end engine failure at highway speed, breaking the crankshaft and sending a connecting rod through the engine block.”

The EcoDiesel can fail with as little as 30,000 km on the odometer, owners claim. Fiat Chrysler is quietly laying the blame on the thin viscosity of the required 5W-30 engine oil, and it has changed the specification to SAE 5W-40 full synthetic oil to better protect engine components. The technical service bulletin applies to all existing 2014-16 models using the EcoDiesel engine.

Mini 1.6-L Four Cylinder



When BMW introduced the all-new Mini in 2002, the resurrected brand promised more fun than ever before. But in the long-standing tradition of British-made automobiles, along with the yuks came some pain. The second-generation **Mini** (2007-2013) used a 118-hp 1.6-L DOHC four

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while the Cooper S performance model used a turbocharged version of the same engine.

Unfortunately, Mini's engines are notorious for failing timing chains and tensioners. Many owners have reported a telltale "death rattle" underhood that can be the first sign of pending engine seizure. CBC documented the woes of an Ontario woman whose 2010 Mini Cooper S stopped dead in its tracks after the timing chain snapped with 64,000 km on the clock. A new engine cost \$10,200.

Other liabilities include short-lived ignition coils and spark plugs, leaky water pumps, faulty fuel pumps and oxygen sensors, as well as oil consumption and leaks from the oil filter housing and the turbo's oil line. And being a direct-injected engine, carbon buildup can strangle performance. The litany of problems with the second-gen engine relegated Mini to the basement of J.D. Power dependability ratings.

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**JJ Walker** • 2 years ago

Here is the lesson, don't buy small displacement turbo's. When they started pumping out these motors to meet mileage requirements I knew there were going to be problems. Luckily you can still find models reliable non turbo motors, like Civic, Corolla or Ford or GM trucks.

2 ^ | v • Reply • Share ›

**Andy Nuksoo-Cow Knig** • 2 years ago

"Ford 1.6-L EcoBoost Four Cylinder" has a picture of the three cylinder engine.
Just sayin'!

1 ^ | v • Reply • Share ›

**Abby Normal** • 2 years ago • edited

Anyone who has ever owned a GM with a 3.1/3100 engine knows what a disaster it was...can you say intake manifold gaskets?

1 ^ | v • Reply • Share ›

**voiceofstl** → Abby Normal • a year ago

and the 3.4

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**David Young** • 5 months ago

The Ford 1.6 turbo warped heads until they redesigned the head for better coolant flow sometime in 2015. If you get a later model, that problem is fixed. It's still a turbo, so letting it idle for a bit before turning it off will help keep the turbo from frying the oil.

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**Randy Kranjec** • 9 months ago • edited

I would add the 3.5 and 3.7 Ford V-6 to this group--some fool at Ford decided that an internal water pump upon failure more often than not destroys entire engine--a class action suit has been filed on this engine group--my 3.7 currently being replaced and when warranty on remanufactured engine expires it's bye bye MKX and hello to some Japanese mid-size suv. I've mostly had Fords, Mercury's and Lincolns my entire life but no longer can take the risk



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**voiceofstl** • a year ago

Glad my sister passat has the 2.5 5 cyl instead of the newer turbo 4 cyl.

^ | v • Reply • Share ›

**Suckerforpunishment** • 2 years ago

I believe the Hyundai 2.4 has been and issue for much longer than the years stated and don't believe it when they say they will replace it free of charge. My 2006 sonata had the exact same issue and they charged me \$6600 for a replacement.

^ | v • Reply • Share ›

**Simon Simmons** • 2 years ago

You could throw in there the Toyota 2.4 oil burner from 2007 to 2010

^ | v • Reply • Share ›

**Jonesy** • 2 years ago

They are right on the money on that POS Peugeot engine in the Mini. In 100,000kms mine went through timing chain and guides, water pump, turbo oil lines, oil cooler seals, manifold pressure sensor and suffered from intake carbon build up twice! I ditched the car before the inevitable motor explosion and feel sorry for the next owners! Gave Mini a black eye they will be decades fixing.

^ | v • Reply • Share ›

**edr9x23super** • 2 years ago

Complete BS lie regarding the EcoDiesel engine; the reason for the "technical bulletin" regarding the 5w-40 synthetic oil had nothing whatsoever to do with engine failures. It had to with the approval by FCA of the use of Rotella T6 5w-40 diesel engine oil because Rotella reformulated the oil to match the ACEA E9 (The American equivalent is now CK-4) specification, which basically covered engines with diesel particulate filters (DPF) as a part of their emissions controls. Previously, Ecodiesel owners were having to mail order brands like Kendall Euro GT2 oils from Amazon to save money and get the correct oil formulations for their oil changes. Rotella has changed that and made oil changes much less costly.....



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